

REMARKS

Claims 1-34 are pending in the present application. Claims 1 and 30 are independent claims. No claims are amended, added, or canceled by this Response.

Telephone Interview

Applicant notes the telephone interview conducted on October 11, 2007 with Examiner Xiuqin Sun. Applicant thanks the Examiner for her time and for discussing the independent claims and currently cited art. In particular, Applicant notes the Examiner's indication that she would reconsider Applicant's arguments if the present Response is filed.

Claim Rejections

Claims 1-8, 10-22 and 30-34 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Yamazaki et al. (U.S. Pub. No. 2003/0004696, herein Yamazaki) in view of Ertel (U.S. Pat. No. 5,307,262, herein Ertel). Claim 9 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Yamazaki in view of Ertel and further in view of Markham et al. (U.S. Pub. No. 2006/0149407). Claims 23-29 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Yamazaki in view of Ertel and further in view of Berger et al. (US 2001/0043882). Applicant respectfully traverses these rejections.

The Examiner asserts on the Continuation Sheet for the Advisory Action dated September 18, 2007 the following in regards to Applicant's claim 1:

"Yamazaki et al. (0043 and 0161) do disclose or teach or suggest this limitation. In particular, it is deemed that Yamazaki's simulation of the chemical processes performed using an operating mechanism and the output of the simulation results including a display of temperatures, pressures, pH, concentrations and compositions of the reaction system by single point or multipoint indeed disclose or teach or suggest 'representing at least a part of the chain of the analysis process by specifying one of the basic sub-processes, per sub-processes of the part of the chain, using at least one control parameter and at least one associated threshold value,' and the subsequent analysis simultaneously performed to determine the pH from the added FeCl₃ amount, temperature and pressure inherently indicates a threshold value that is associated with said step of representing."

Accordingly, the Examiner in the June 1, 2007 Office Action and the September 18, 2007 Advisory Action is relying upon Yamazaki as disclosing the “sub-processes” as required by claim 1. However, the Examiner admitted to Applicant in the October 11, 2007 interview that Yamazaki does not disclose the “sub-processes” as required by claim 1. Therefore, Applicant respectfully submits that Yamazaki cannot disclose “storing at least one of fundamental chemical and physical basic sub-processes for the group in a first database” as required by claim 1, let alone “representing at least a part of the chain of the analysis process by specifying one of the basic sub-processes, per sub-processes of the part of the chain, using at least one control parameter and at least one associated threshold value” as required by claim 1.

Further, Applicant respectfully submits that if Yamazaki fails to disclose “sub-processes,” Yamazaki clearly cannot disclose “representing at least a part of the chain of the analysis process by specifying one of the basic sub-processes, per sub-processes of the part of the chain, using at least one control parameter and at least one associated threshold value” as required by claim 1. In particular, Yamazaki does not and cannot disclose at least one control parameter and at least one associated threshold value for each sub-process because Yamazaki does not disclose the “sub-processes” as required by claim 1 in the first place.

Still further, Applicant respectfully submits that the Examiner merely cites lengthy portions of Yamazaki, Ertel, and Markham in the June 1, 2007 Office Action and in the September 18, 2007 Advisory Action. In particular, Applicant respectfully submits that the Examiner does not identify in any Official Action what features in the cited art are the alleged “analysis process,” “sub-processes,” “at least one control parameter,” “at least one associated threshold value,” “measurement values,” and their associated interconnections as required by Applicant’s claim 1, and that the Examiner was unable to identify these features to Applicant in

the October 11, 2007 interview. Accordingly, Applicant respectfully requests that if the Examiner wishes to maintain her rejections using the currently cited art, that the Examiner identify the specific features in the cited art which are alleged to correspond to the above-noted features of Applicant's claim 1.

Applicant now addresses in detail the Examiner's reliance upon the primary reference Yamazaki. Yamazaki discloses at paragraph [0039] "in the chemical model storage part 4, a chemical model is determined from all the chemical reactions which could be induced by the input chemical species, and all the chemical substances including intermediates resulting therefrom." Yamazaki further discloses at paragraph [0040] the chemical model physical property data storage part 5 supplies basic conditions to the chemical model extracted, generates thermodynamic property data for the chemical model required to calculate characteristic values, equilibrium conditions and chemical components in the system (step S3), and stores this data (step S4)." Yamazaki discloses at paragraph [0041] "based on the thermodynamic property data, the chemical equilibrium determining part 6 calculates characteristic values, determines equilibrium conditions and determines the chemical composition of the reaction system."

Therefore, the characteristic values, equilibrium conditions, and chemical composition of the reaction system are representative of the whole of the reaction system, and are not associated with specific individual sub-processes of an overall analysis process. To the contrary, Yamazaki merely discloses at paragraph [0043] "the analysis results for characteristic values, equilibrium conditions and chemical composition of the reaction system are transferred to the spreadsheet software 1 via an add-in software 8," and does not disclose that the characteristic values and equilibrium conditions characterize specific sub-processes of the overall reaction system.

Applicant's claim 1 discloses *inter alia* "representing at least a part of the chain of the analysis process by specifying one of the basic sub-processes, per sub-processes of the part of the

chain, using at least one control parameter and at least one associated threshold value.” Therefore each of the sub-processes for the quality control may be characterized by at least one control parameter and by at least one threshold value in association with the control parameter. Accordingly, it may be possible for example embodiments described in Applicant’s specification to know what specific sub-processes of the analysis process may be causing an error because each specific sub-process is specified by at least one control parameter and at least one associated threshold value. Yamazaki does not allow for identifying a specific sub-process which may be causing an error because Yamazaki does not disclose each of the sub-processes specified by a control parameter and an associated threshold value. In particular, as noted above, Yamazaki merely computes characteristic values and equilibrium conditions for the overall simulation process without associating the values and conditions with particular sub-processes. Applicant also notes again the Examiner’s inability to point to any feature in Yamazaki which corresponds to the “sub-processes” of Applicant’s claim 1, and therefore, that Yamazaki cannot disclose each of the sub-processes specified by a control parameter and an associated threshold value. Accordingly, Yamazaki fails to disclose “representing at least a part of the chain of the analysis process by specifying one of the basic sub-processes, per sub-processes of the part of the chain, using at least one control parameter and at least one associated threshold value” as required by claim 1.

Still further, Applicant’s claim 1 requires “determining measurement values of the control parameters for at least one run of the analysis process.” Yamazaki, however, does not disclose determining a measurement value for each of the control parameters for each of the sub-processes. Yamazaki merely discloses at paragraph [0161] “The pH, temperature and pressure (atmospheric pressure) in the dissolution tank can be measured respectively by a pH meter, thermometer and manometer inserted in the tank” and at paragraph [0162] “comparing the

pH measured by the pH meter and the analysis value.” Yamazaki does not associate individual measurements with a specific control parameter for a specific sub-process in anyway.

Applicant respectfully submits that even assuming for the sake of argument Yamazaki, Ertel, Berger, and/or Markham are properly combinable (which Applicant does not admit), Ertel, Berger, and Markham fail to cure the deficiencies of Yamazaki discussed above in regards to claim 1, and therefore, claim 1 is not rendered obvious by a combination of Yamazaki, Ertel, Berger, and Markahm. Accordingly, Applicant respectfully submits that claim 1 is patentable for at least the above reasons. Further, Applicant respectfully submits that claim 30 contains features somewhat similar to those discussed above in regards to claim 1 and is therefore patentable for at least somewhat similar reasons as claim 1. Applicant also respectfully submits that claims 2-29 and 31-34, which depend from one of claims 1 and 30, are patentable for at least the same reasons discussed above in regards to claims 1 and 30 as well as on their own merits.

Applicant now addresses in detail the Examiner’s reliance upon the secondary reference Ertel and the Examiner’s combination of Yamazaki and Ertel. The Examiner already admits that Yamazaki fails to disclose all of the features of independent claims 1 and 30. In particular, the Examiner admits at the Continuation Sheet for the September 18, 2007 Advisory Action and at page 3 of the June 1, 2007 Office Action that Yamazaki fails to disclose “comparing the measurement values with the associated threshold values for the quality control in a chronological order of the occurrence of the sub-processes in the part of the chain in the course of the analysis process” as required by claim 1. Instead, the Examiner relies on Ertel as disclosing these features.

However, Ertel discloses “after all data corrections have been made for a group of cases, a second data quality profile report is generated to document the extent to which the quality of

patient data has improved.”¹ Therefore, Ertel does not disclose “comparing...in chronological order...in the course of the analysis process” as required by claim 1. To the contrary, Ertel “compares” after all data corrections have been made for a group of cases. Accordingly, Ertel fails to cure the deficiencies of Yamazaki noted above as admitted by the Examiner.

Further, Applicant respectfully submits that one skilled in the art would not look to combine Yamazaki with Ertel. Yamazaki is directed to a method of analyzing chemical processes.² Ertel, however, is directed to a method and system to review and control clinical data quality in the reporting of hospital claims data.³ In particular, Ertel discloses “patient data, consisting of diagnosis and procedure codes plus certain personal attributes such as age and gender, are processed through a series of data check subroutines to assess the quality of the reported data.”⁴ Therefore, Ertel is directed to reviewing data quality, not quality control for an analysis process. In particular, Ertel never carries out any quality control for an analysis process; instead Ertel merely identifies problems in data quality and is unconcerned with analyzing any process.⁵ Ertel does not even disclose a model including all of the reactions that an input species could induce, and all the substances including intermediates resulting therefrom as found in Yamazaki.⁶ Further, Ertel is directed to reviewing and controlling clinical data quality in the reporting of hospital claims data, and therefore, Ertel certainly does not disclose “storing at least one of fundamental chemical and physical basic sub-processes for the group in a first database” as required by Applicant’s claim 1. Accordingly, the skilled artisan would not look to combine Yamazaki, which is directed to a method of analyzing chemical processes, with

¹ *Ertel* at Col. 35, Ll. 50-53.

² See *Yamazaki* at Abstract.

³ See *Ertel* at Abstract.

⁴ *Id.* at Col. 26, Ll. 61-65.

⁵ See *Id.* at Col. 5, Ll. 35-39.

⁶ See *Yamazaki* at paragraph [0030].

the hospital claims data quality review of Ertel. Accordingly, Applicant respectfully submits that claims 1-34 are patentable for at least the above reasons.

In view of the above, Applicant respectfully requests the rejections under 35 U.S.C. § 102(a) and 35 U.S.C. § 103(a) be withdrawn.

CONCLUSION

Accordingly, in view of the above amendments and remarks, reconsideration of the objections and rejections and allowance of each of the claims in connection with the present application is earnestly solicited.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Donald J. Daley at the telephone number of the undersigned below.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 08-0750 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Respectfully submitted,

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By

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